

CLAIMS: *This listing of claims will replace all prior versions, and listings, of claims in the application:*

1. (Original) A spray cooling system comprising:

an electronic component with a hotspot zone having a high heat flux;

a spray module having a cavity within, said spray module capable of receiving a supply of liquid coolant;

a spray fin located generally over said hotspot zone and protruding within said cavity of said spray module

said spray module having a nozzle located generally over and in a spaced apart relationship to said spray fin, said nozzle for breaking up said supply of liquid coolant into a droplet pattern that creates a thin evaporative coolant film on a top surface of said spray fin; and

wherein said thin evaporative coolant film is capable of thermally managing said hotspot zone.

2. (Original) The spray cooling system of claim 1, wherein said nozzle is an atomizer.

3. (Original) The spray cooling system of claim 2, wherein said atomizer is a pressure swirl atomizer.

4. (Original) The spray cooling system of claim 1, wherein said top surface of said spray fin includes a surface enhancement.

5. (Original) The spray cooling system of claim 1, wherein said supply of liquid coolant is below its saturation temperature prior to entering said nozzle.

6. (Original) The spray cooling system of claim 1, wherein said supply of liquid coolant is above its saturation temperature prior to entering said nozzle.

7. (Original) The spray cooling system of claim 1, wherein said top surface of said base contains a portion of said supply of liquid coolant that further cools said electronic component.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. The thermal management system of claim 1, wherein said recipient base includes a plurality of grooves.